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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/662,150	09/14/2000	Shigeaki Tochimoto	54024-022	9616
7590 02/23/2004				
McDermott Will & Emery 600 13th Street NW Washington, DC 20005		EXAMINER DEL SOLE, JOSEPH S		
		ART UNIT 1722		PAPER NUMBER

DATE MAILED: 02/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/662,150

Applicant(s)

TOCHIMOTO ET AL.

Examiner

Joseph S. Del Sole

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3,12,23-25 and 28-32 is/are pending in the application.
- 4a) Of the above claim(s) 25 and 28-32 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12,23 and 24 is/are allowed.
- 6) ☒ Claim(s) 2 and 3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. This application contains claims 25 and 28-32 drawn to an invention nonelected with traverse in the response of 5/22/03. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 2-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Cima et al (5,387,380).

Cima et al teach an apparatus for forming a three-dimensional product, the apparatus having a layer forming mechanism for forming a layer of material (Fig 1, #13 or Fig2A, #41); an applying head (Fig 1, #15 or Fig 2B, #43 and #43A) for applying plural kinds of materials to the layer; a controller for controlling the applying head to apply materials selectively to a predetermined region on the layer (col 3, lines 2-14 and col 4, lines 12-28); the controller controls the applying head to applying one material after another material (col 12, lines 3-10) (such as applying binder after applying ink);

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the controller controls the applying head such that the applying head can apply binder and/or ink.

Regarding the use of one material that becomes stable faster than another material before another material is applied to the layer, this amounts to an intended use of the apparatus and has no patentable weight. Intended use has been continuously held not to be germane to determining the patentability of the apparatus. Purpose to which apparatus is to be put and expression relating apparatus to contents thereof during intended operation are not significant in determining patentability of an apparatus claim. Inclusion of the material worked upon by a structure being claimed does not impart patentability to the claims. A recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the structural limitation of that claimed. The manner or method in which a machine is to be utilized is not germane to the issue of patentability of the machine itself. See also MPEP 2114 wherein it states that the apparatus must be distinguished from the prior art in terms of structure rather than function.

Allowable Subject Matter

4. Claims 12, 23-24 allowed.

5. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach the limitations of these claims as stated in the previous Office actions of papers #s 6 and 9 respectively (mailed 9/5/02 and 1/28/03).

Response to Arguments

6. Applicant's arguments filed 5/22/03 have been fully considered but they are not persuasive.

The Applicant previously argued that, with regard to the amendment to claims 2 and 3, the controlling operation of the controller is germane to the issue of patentability of the machine.

The Examiner still disagrees. In so much as Cima et al may not teach these intended uses (discussed above as not a patentable limitation in an apparatus claim), Cima et al does teach an apparatus with a controller capable of performing this intended use and therefore 35USC102 is satisfied. While functional language in an apparatus claim may be given weight, the weight given is only towards limitations that further define the structural operation of the apparatus. Since the controller of Cima et al controls the order that materials are supplied, it reads on the claimed limitations. The claimed controller does not function to differentiate between ink or binder, nor does it function to differentiate between the stability times of different materials, it merely functions to differentiate between a material a plurality of materials from a plurality of sources in a particular order. Upon review of the Applicant's specification the Examiner had found no evidence that the Applicant had possession of a controller capable of performing these two functions of differentiation. Furthermore, the controller of Cima et al controls the application of material A before material B. It is merely a process limitation (having no weight in an apparatus claim) to use as material A an ink and as material B a binder, and it is merely a process limitation (having no weight in an

apparatus claim) to use as material A a material with a time for becoming stable that is less than the time for becoming stable of material B.

The Applicant further argues that the limitations of claims 2 and 3 are limiting the controlling by the controller to specifically recited control function(s)/operations. The Applicant further cites MPEP2173.05(b) and argues that a functional limitation is an attempt to define something by what it does, rather than by what it is and that there is nothing wrong with defining some part of an invention in functional terms.

The Examiner agrees in that there is nothing wrong with defining an invention in functional terms, as set forth in MPEP2173.05(b). Nevertheless, the functional language in claims 2 and 3 does not structurally limit the controller over the cited prior art. The claimed controller is nowhere taught to be able to determine the relative times for stability of the plural kinds of material and likewise is nowhere taught to be able to determine whether a material is ink or binder. Therefore, the fullest extent of which the claim is defined (by the function claimed) is a controller that controls the application of one material after another. Cima et al does teach a controller for applying one material after another. The controller of the claimed invention merely applies binder after ink (or a faster stabilizing material after a slower stabilizing material) because the controller applies material from one particular location before material from a second particular location. Functional language in an apparatus claim must serve to structurally differentiate an apparatus. The functional language in claims 2 and 3 merely serves to structurally differentiate the claimed controller from a controller that does not differentiate material locations. The controller "knows" what location from which to

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apply material first, second, third, etc.; the controller does not know the difference between two materials of different stabilization time or two materials of different composition, i.e. ink and binder. Should the claims be amended to recite clearly that the controller does have such distinguishing capabilities, the added limitation (while also being a new issue) would constitute new matter unless the Applicant can show that it was taught in the original disclosure.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Joseph S. Del Sole whose telephone number is (571) 272-1130. The examiner can normally be reached on Monday through Friday from 8:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Wanda Walker, can be reached at (571) 272-1151. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for both non-after finals and for after finals.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from the either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll-free).

Joseph Szeel Sop

J.S.D.

February 9, 2004


ROBERT DAVIS
PRIMARY EXAMINER
GROUP 1300/1700

2/12/04